THE ALLIANCE OF SPECIAL EFFECTS & PYROTECHNIC OPERATORS, INC.

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Dockets Management System
U.S. Department of Transportation
Room PL-401
400 Seventh Street, SW
Washington, D.C. 20590-0001
via facsimile (202) 366-3753 FAX

Regarding: Docket No. RSPA-04-17167 (Notice No. 04-02)

Ladies and Gentlemen,

We are a non-profit, mutual-benefit, volunteer-run organization of special effects professionals who work in motion pictures, television and on stage and are writing to you with our comments on the economic impact of the regulations in 49 CFR Parts 172, 173, 174, 175, 176, 177 and 178 on small entities with respect to the transportation of explosives and other hazardous materials and on ways to make these regulations easier to read and understand.

Let us begin by thanking DOT for this opportunity to give input. Contrary to the popular conception that film television and entertainment production is undertaken mostly by large studios and media conglomerates, it is the small entities, often individuals, who are employed or contracted by these large entities who do the actual work and hence bear the brunt of these regulations.

This being the case, we feel it is important that the government in general and the DOT in specific view all regulatory activity with that in mind.

Our organization's comments are as follows:

Regarding how and to what degree these rules affect us:

Given that the 49 CFR regulations control the transportation of all explosives and that which cannot be shipped or transported effectively cannot be used in the modern, mobile, decentralized entertainment industry environment,

these rules directly affect the daily operations of motion picture, television and stage professionals in general and pyrotechnic operators in specific a great deal.

A seemingly minor change in the regulations can and often does have a major effect on what can be done in our industry because it limits access to materials such as special effects explosives and pyrotechnics necessary for production.

Regarding the economic impact and why the economic impact is significant:

Entertainment is our nation's number two export. It provides international prestige and creates high value jobs. Further, it is estimated based on economic studies that for every job in the entertainment industry, there are seven additional support jobs in the wider economy that depend on it.

Our industry is based on free creative expression and technical innovation as well as the ability to quickly and effectively realize on the stage or screen what has been imagined just a short time before.

Anything which unnecessarily or excessively limits what can be transported or shipped or which causes delays or time and effort to be wastefully diverted from the production affects decisions which are made regarding where productions take place.

Given the time-sensitive nature of the industry and the often large amounts of money at stake if a delay occurs, such decisions take the regulatory climate into consideration.

Globalization being what it is, production companies have more choices than ever regarding where they shoot their movies and television productions.

If a production goes abroad, it means not only that most of the jobs are lost but that all the money which is spent on the other aspects of the production is lost as well. Cumulatively, this can be a very large sum of money and have a very wide-reaching effect on entertainment industry workers here in America.

This is why the economic impact of the regulations is so significant and why it is important that they be as entertainment industry friendly as practicable if America is to continue to benefit from being the number one producer of entertainment in the world as it has in the past.

Regarding making these regulations easier to read:

We strongly feel that a greater effort must be made on the part of the government to make these regulations accessible to the lay people who are expected to understand them and implement them in practice. As it stands, they are often very dense, complex, awkwardly structured, unintuitive in terms of order, construction, etc. and written in a bureaucratic/legal jargon which the average person finds cumbersome and difficult to comprehend.

While it seems that "plain language" is often referred to with respect to regulatory revision, prompt and comprehensive implementation is long overdue.

The current structure creates a high training and compliance burden on small entities who cannot easily afford either the luxury of having an outside consultant specifically to learn the regulations as applicable to their business and to translate them into a form understandable by the average worker, the time and administrative effort required to do so themselves, or to pay the fines which result from an incomplete understanding.

This problem is mirrored on the enforcement side. It is also important to realize that even if the worker understands the regulations, the enforcement official whom he or she encounters in their daily activities may have similar difficulties in understanding them, resulting in at best wasted time or at worst, an unwarranted citation.

Bona fide "plain language" regulation would benefit everyone. Especially with respect to explosives, commercial training is very limited in both its scope and availability, meaning that the burden again falls directly on the small entity.

Converting them into the sort of "question and answer" format as in the FMCSA regulations in Part 40 would be a good start. While we realize that it will not be a simple or

easy task, it is an important one so as to avoid setting small entities up to fail by expecting them to comply with a vast set of complex regulations which are presented in a relatively inaccessible format.

Regarding making the regulations easier to understand:

Besides being in plain language, greater effort must be made to use structure which clearly and directly communicates the intent of the regulation with a minimum of confusing and distracting details.

A particularly problematic example of such language is in 49 CFR Sec. 107.601 "Applicability" with respect to registration:

Sec. 107.601 Applicability.

(a) The registration and fee requirements of this subpart apply to any person who offers for transportation, or transports, in foreign, interstate or intrastate commerce--

(1) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in Sec. 173.403 of this chapter;

(2) More than 25 kg (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material (see Sec. 173.50 of this chapter) in a motor vehicle, rail car or freight container;

(3) More than one L (1.06 quarts) per package of a material extremely toxic by inhalation (i.e., ``material poisonous by inhalation,'' as defined in Sec. 171.8 of this chapter, that meets the criteria for ``hazard zone A,'' as specified in Sec. Sec. 173.116(a) or 173.133(a) of this chapter);

(4) A shipment of a quantity of hazardous materials in a bulk packaging (see Sec. 171.8 of this chapter) having a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids;

(5) A shipment in other than a bulk packaging of 2,268 kg (5,000 pounds) gross weight or more of one class of hazardous materials for which placarding of a vehicle, rail car, or freight container is required for that class, under the provisions of subpart F of part 172 of this chapter; or

(6) Except as provided in paragraph (b) of this section, a quantity of hazardous material that requires placarding, under provisions of subpart F of part 172 of this chapter.

(b) Paragraph (a)(6) of this section does not apply to those activities of a farmer, as defined in Sec. 171.8 of this chapter, that are in direct support of the farmer's farming operations.

(c) In this subpart, the term ``shipment'' means the offering or loading of hazardous material at one loading facility using one transport vehicle, or the transport of that transport vehicle.

We feel that only an astute, highly-trained person, who is experienced with the wording style of the current regulations and who reads that section very carefully will notice that 107.601(a)(2) is completely meaningless, given that 107.601(a)(6) makes the section applicable to "a quantity of hazardous material that requires placarding" and any quantity of a Division 1.1, 1.2, or 1.3 (explosive) material (whether more than 25 kg or not) requires placarding.

A reasonable person using small quantities of explosives who is less familiar will likely be misled by 107.601(a)(2) and conclude that he or she is not required to register because he or she will not be expecting deceptive wording. Worse yet, he or she will probably discover the error only when fined.

This is neither reasonable nor fair yet this misleading language has persisted for many years unchanged despite many other changes having been made. It should have been corrected when (6) was added.

The entire regulations must be carefully examined for such redundant, deceptive misleading and/or vestigial language. It must be promptly removed and future revisions made with a view toward minimizing confusion.

Regarding making the regulations easier to understand by minimizing the transfer and proliferation of misleading wording:

Not only must the existing regulations be carefully examined for the sort of deceptive vestigial language described above, but care must be taken that such language is not copied into other parts of the regulations.

Unfortunately, the essentially identical language was copied into Section 172.800 "Purpose and applicability" with respect to security plans:

Sec. 172.800 Purpose and applicability.

(a) Purpose. This subpart prescribes requirements for development and implementation of plans to address security risks related to the transportation of hazardous materials in commerce.

(b) Applicability. By September 25, 2003, each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a security plan for hazardous materials that conforms to the requirements of this subpart:

(1) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in Sec. 173.403 of this subchapter, in a motor vehicle, rail car, or freight container;

(2) More than 25 kg (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, rail car, or freight container;

(3) More than one L (1.06 qt) per package of a material poisonous by inhalation, as defined in Sec. 171.8 of this subchapter, that meets the criteria for Hazard Zone A, as specified in Sec. Sec. 173.116(a) or 173.133(a) of this subchapter;

(4) A shipment of a quantity of hazardous materials in a bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids;

(5) A shipment in other than a bulk packaging of 2,268 kg (5,000 pounds) gross weight or more of one class of hazardous materials for which placarding of a vehicle, rail car, or freight container is required for that class under the provisions of subpart F of this part;

(6) A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR part 73; or

(7) A quantity of hazardous material that requires placarding under the provisions of subpart F of this part.

Once again, 172.800(b)(2) is meaningless in view of 172.800(b)(7) which effectively supersedes it.

Copying previously existing confusing or deceptive language merely perpetuates and proliferates the problem. Before any existing language is copied to another area of the regulations, it must be carefully examined to determine if it is confusing or misleading, both in its current and new context.

Regarding making procedures more clear and user-friendly:

The exemptions represent a useful mechanism to aid small entities but the renewal of party status could be more clear and user-friendly.

Section 107.108 (b) If at least 60 days before an existing exemption expires the holder files an application for renewal that is complete and conforms to the requirements of this section, the exemption will not expire until final administrative action

A reasonable person reading this might conclude that it applies to existing exemptions only and not to party status since party status is not mentioned.

In practice, it appears that it is DOT's policy that both the exemption itself and party status are subject to the 60 day rule. If this is the case, then the wording should be to that effect.

Small entities depend upon reliable access to shipping and losing access to an exemption can be a significant hardship.

Given the complexity of some exemptions, it is not unreasonable that a period of time might be required for DOT to evaluate their renewal. However, renewing the party status to an existing exemption which is still in effect and has not expired should be very simple in many cases and it is difficult to see why an arbitrary 60 day prior limit should be imposed.

There should be a separate "fast track" renewal system for party status in cases where the renewal is simply procedural and does not involve significant technical issues.

Regarding making the availability of EX numbers and the adherent documentation more accessible:

We understand that there is a project underway to make all EX numbers and the adherent documentation available via the Internet but that it is likely to be some time before that project is completed.

As is widely known, a competent authority approval in the form of an EX number is required for the transportation of explosives in commerce yet curiously, there does not seem to be any requirement for an explosives supplier or shipper of an explosive to supply the number to the recipient/end user.

There are provisions in the regulations in 172.320 (c) and (d) that at least five EX numbers may be marked on the package or that the EX numbers be on the shipping paper. We believe that this is reasonable given that many explosives shipments in the entertainment industry are from manufacturer directly to the point of use and there is no need for elaborate documentation of multiple EX numbers.

There are however cases where the end user must subsequently ship or transport unused explosive materials to another location and thus must know 1) that EX numbers exist for each item and 2) which EX number corresponds to which item.

It has been the experience of our members that some explosives suppliers attach a low priority to supplying such information in a timely manner or at all, thus placing the burden of obtaining it on the end user, which we feel is unfair as it delays shipments in our highly time sensitive industry.

We propose that a requirement similar to that in 178.601(l) with respect to packaging testing be implemented for EX numbers, along with a reasonable but effective enforcement mechanism to ensure that this is done in a timely manner. That section states that "The test report must be made available to a user of a packaging or a representative of the Department upon request".

It seems reasonable that if the supplier/shipper is required to prove to the user that the packaging is compliant, he or she should be required to do so with the explosive contents as well by supplying the EX number and/or the competent authority papers. The burden on suppliers will be minimal and making the availability of EX numbers and the adherent documentation more accessible will facilitate the safe and timely movement of entertainment industry explosive shipments.

Regarding further clarifying the classification of blank cartridges:

The provision of 173.56(h) which allows a manufacturer to assign a classification code of 1.4S to certain small arms cartridges is extremely useful to the entertainment industry with respect to the shipment of specialty blank cartridges.

From the wording, it seems quite clear that the intent was to include blanks:

> 173.56 (h) The requirements of this section do not apply to cartridges, small arms which are:
> (1) Not a forbidden explosive under Sec. 173.54 of this subchapter;
> (2) Ammunition for rifle, pistol, or shotgun;
> (3) Ammunition with inert projectile or blank ammunition; and
> (4) Ammunition not exceeding 50 caliber for rifle or pistol cartridges or 8 gauge for shotgun shells.
>
> Cartridges, small arms meeting the criteria of this paragraph (h) may be assigned a classification code of 1.4S by the manufacturer.

Unfortunately, while the proper shipping name "Cartridges, small arms" (UN0012) is specifically mentioned, the proper

shipping name "Cartridges, small arms, blank" (UN0014) is not.

While this difference is largely academic within the United States, our members have encountered export situations where foreign authorities who read 173.56 (h) don't understand why the "Cartridges, small arms, blank" (UN0014) proper shipping name is not mentioned and thus treat blanks classified under (h) as though they were live ammunition under their regulations. This can lead to burdensome delays in customs, etc.

To address this issue and to further clarify the classification of blank cartridges, we propose that language be added to 173.56(h) to the effect that cartridges, small arms or cartridges, small arms, blank meeting the criteria of this paragraph (h) may be assigned a classification code of 1.4S and the proper shipping name "Cartridges, small arms UN0012" or "Cartridges, small arms, blank or Cartridges for weapons, blank, UN0014" as appropriate by the manufacturer.

This will fully clarify the matter to anyone reading this section and help preserve our nation's status as the world's leading supplier of motion picture, television and entertainment industry blank cartridges.

Regarding the implementations of corrections and clarifications in a timely manner once problems have been identified:

It is essential that problems with the regulations be corrected quickly such that the burden of repeatedly having to answer the same concerns can be minimized.

Unfortunately, there seems to be a problem with this. An example with which our members are familiar are the provisions in Section 177.835(g). This section is very important and useful to the special effects industry as it allows the transportation of certain detonators with small quantities of detonating cord in the same vehicle:

> 177.835(g) No detonator assembly or booster with detonator may be transported on the same motor vehicle with any Division 1.1, 1.2 or 1.3 material (except other detonator assemblies, boosters with detonators or detonators), detonating cord Division 1.4 material or Division 1.5

material.

No detonator may be transported on the same motor vehicle with any Division 1.1, 1.2 or 1.3 material (except other detonators, detonator assemblies or boosters with detonators), detonating cord Division 1.4 material or Division 1.5 material unless--

(1) It is packed in a specification MC 201 (Sec. 178.318 of this subchapter) container; or

(2) The package conforms with requirements prescribed in ***Sec. 173.63*** of this subchapter, and its use is restricted to instances when--

(i) There is no Division 1.1, 1.2, 1.3 or 1.5 material loaded on the motor vehicle; and

(ii) A separation of 61 cm (24 inches) is maintained between each package of detonators and each package of detonating cord; or

(3) It is packed and loaded in accordance with a method approved by the Department. One method approved by the Department requires that--

(i) The detonators are in packagings as prescribed in Sec. 173.63 of this subchapter which in turn are loaded into suitable containers or separate compartments; and

(ii) That both the detonators and the container or compartment meet the requirements of the Institute of Makers of Explosives' Safety Library Publication No. 22 (incorporated by reference, see Sec. 171.7 of this subchapter).

From this section, it is clear that there are essentially three different ways this can be done in a compliant manner:

-using an MC 201 packaging as in 177.835(g)(1)

-by maintaining a separation of 61 cm (24 inches) between each package of detonators and each package of detonating cord as in 177.835(g)(2)

-by using an Institute of Makers of Explosives' Safety Library Publication No. 22 packaging (aka "IME 22 box")

The second way with the separation distance has been common knowledge within the industry for many years. Unfortunately, 177.835(g)(2) contains an erroneous reference to 173.63, which once again refers to the IME 22 box as an outer packaging, and would make the methods in (g)(2) and (g)(3) the same. This is clearly a mistake which was pointed out by David Boston of Owen Compliance Service in his letter to DOT of April 19th, 1994 (attached).

In DOT's response of May 4, 1994 (attached), DOT acknowledges the error and states that they "will correct this error in the regulations as soon as possible".

Since then, ten years have elapsed during which problems related to this error have repeatedly occurred. These have been burdensome to small entities, who have had to repeatedly explain/prove that the error exists.

Once problems have been identified, implementations of corrections and clarification must be made in a timely manner. The language in 177.835(g) should immediately be corrected, without incorrect cross-references, so as to clearly convey the intent, which as expressed in DOT's letter is that "177.835(g) should allow Detonators, Division 1.4S to be transported with Detonating Cord, Division 1.4D, if separated by a minimum of 61 cm (24 inches)".

<u>Regarding agencies/persons approved by the Associate Administrator to examine new explosives:</u>

We understand the need for the approval procedure and further that sometimes, despite the government's best efforts to set forth objective criteria and the agency's efforts to follow them, subjective judgments have to be made with respect to classifying explosives.

There do appear to be some issues with the practical implementation of this system which are burdensome to small entities.

An example would be with respect to 173.56(a)(2), in which "An explosive will not be considered a 'new explosive' if

an agency listed in paragraph (b) of this section has determined, and confirmed in writing to the Associate Administrator, that there are no significant differences in hazard characteristics from the explosive previously approved."

Given the vast diversity of applications for explosives in the entertainment industry, circumstances often arise which require a manufacturer to make a minor change in an existing device such that it can fulfill a given, highly specific purpose.

Often manufacturers are willing to make such changes but need to obtain the written confirmation from the agency which classified it originally as per 173.56(a)(2).

While some agencies are quite reasonable with respect to such confirmations when the changes truly result in no significant differences in hazard characteristics from the explosive previously approved, it seems that others tend to insist in retesting no matter how minor the changes and/or categorically refuse to do classification by analogy.

As stated previously, we understand that subjective judgments have to be made with respect to classifying explosives and that agencies have to err on the side of caution. On the other hand, it is clearly in the financial interest of an agency to do expensive retesting.

Further, there also seems to be a considerable disparity in price between agencies, with the result that the agencies with reasonable prices often have long waits.

We feel that there needs to be a system of checks and balances to keep the classification process safe, affordable and fair. Such a system might include:

-DOT actively soliciting more agencies to enter the system so as to allow competitive market forces to keep prices moderate and waits short. At present, there seem to be only four agencies, which is very few for a true free-market system to function effectively. The testing itself is relatively simple in terms of equipment, etc. such that it should not pose a barrier to entry. Ideally, more academic institutions who operate on a not-for-profit, cost recovery basis could be recruited.

-A standardized set of fees based on the actual cost of the testing plus a reasonable profit, reviewed as with other government contracts and programs, or

-requiring each agency to publish their fee structure for the standardized tests as well as their policies with respect to 173.56(a)(2) and other aspects of classification, or

-a multi-tiered system of fees based on the size of the entity and its ability to pay.

-a periodic performance review on each agency by DOT with published data on the fees charged, types of classifications given and tests done, turn around time, number of approvals under 173.56(a)(2) versus retests, etc., value for money delivered, and level of customer satisfaction achieved.

-requiring that an anonymous customer satisfaction survey form be included with each test report and sent directly to DOT.

-a formal appeals process, board or review entity made available to the party applying for the classification if they were overcharged or unfairly required to do unnecessary testing.

-increased DOT oversight of agencies not only as in the past to insure that the testing done is technically correct but also delivered in a timely and cost-effective manner.

The ability to have new or modified explosive items classified quickly, accurately and in a cost effective manner is essential to maintaining the entertainment industry's ability to innovate, which in turn is vital to maintaining our leading role in the global entertainment marketplace.

Such innovation is done almost entirely by small entities and government must play its part by working with industry to maintain safety and economy via a reasonable regulatory environment.

Regarding the classification of hazardous materials as explosives or non-explosives using industry standards:

The use of industry standards such as APA 87-1 for fireworks referred to in 173.56(j) are very useful. We suggest that this approach be extended to other aspects of entertainment industry explosives use where many similar explosive devices have to be produced in small numbers and classified.

We would like to work with DOT so as to create a process whereby such industry standards could be evaluated for their suitability and applicability and then incorporated into the regulations where appropriate.

Regarding materials of trade, Class 9 and ORM-D:

In going through the regulations, there seem to be numerous examples of explosive materials used in small quantities and in mass markets which are classified in less restrictive ways than similar materials used in our industry.

Examples of these might include air bag inflators, etc. reclassified as Class 9 under 173.166(b), black powder and smokeless powder reclassified as flammable solids under 173.170 and 173.171 respectively or power device cartridges reclassified as ORM-D under 173.63(b).

Further, there seems to also be the recognition that small quantities of various hazardous materials need to be transported by private motor carriers in direct support of their principal business as per the materials of trade exceptions in 173.6.

Given these parts of the regulations, it is unclear to us exactly how one would pursue such less restrictive regulation of devices and materials which are used in the entertainment industry which present a similar or lesser hazard but which are not used in mass markets. The regulations do not seem to clearly set forth the criteria or the process by which this may be achieved.

In the interest of fairness, transparency and equal protection under the law, we propose that a process be created whereby a material used in a similar manner and

quantity and which presents a similar or lesser hazard can be used by entertainment industry professionals under less restrictive regulations analogous to those examples cited above, with a view toward easing the regulatory burden on small entities without compromising safety.

Regarding making the tables easier to read:

The hazardous materials table in 172.101 provides a great deal of useful information in a tabulated form but it does not directly provide packaging information for explosives in the same way that it does for other hazardous materials.

Unfortunately, all explosive materials simply refer to 173.62 in Column 8B. The user then has to refer to the Explosives Table in 173.62(b) which requires the user to look up the relevant packing instruction by ID number, then to refer to the Explosives Packing Instruction Table in 173.62(c) to find the actual packaging information.

The intermediate steps do not provide any significant information which could not be conveyed in other ways. They do however, provide an ample opportunity for confusion and error as the proper shipping names are not listed in the Explosives Table in 173.62(b), only the ID numbers.

We are not aware of any technical reason why this should be so and the only explanations pertaining to the existing system we have heard are that the Explosives Table predated the hazardous materials table and was never integrated into it. Even if this were the case, we don't think it justifies an awkward and error prone system.

This system is needlessly complex and the packing instruction should be accessible directly from the hazardous materials table in 172.101 in one simple step.

Regarding response time to questions and requests:

Unfortunately, it seems that DOT's response time with respect to questions, inquiries and requests is often less than optimal.

Many of the letters of interpretation begin with an apology for the long delay in responding. While such an apology is

certainly warranted in such cases, it is important to realize that the lack of timely access to definitive information is burdensome, especially to small entities and extremely so to small entities in the fast-paced entertainment industry where almost everything is time-sensitive and done on a "just in time" basis with short term planning and frequent schedule changes.

We are aware of a recent case in which a production company requested an exemption which apparently languished for many months before any action was taken by DOT, by which time it had been overtaken by circumstances. While an apology was offered and accepted in this case, it nevertheless points to an area in which there seems to be room for improvement.

While we don't expect DOT to conform to our industry's break-neck pace, it is important that responses be available in a timely manner without the need for repeated follow-ups from the entity making the inquiry or request.

We suggest that DOT make a formal performance pledge to answer written questions, inquiries and requests within a fixed period of time, measure its performance against this pledge and publish the results on a regular basis.

Regarding the response to verbal questions and inquiries:

While we understand that only written responses from DOT are definitive, the DOT/RSPA Hazardous Material Info Line is nonetheless a very good and useful resource for small entities. We recommend that its hours be extended to encompass the full business day nation-wide such that a small entity on the West Coast operating on Pacific time will have equal access to information i.e. the same that a similar entity on the East Coast would have.

Regarding direct interaction:

Regrettably, there does seem to be a tendency on DOT's part to center its technical and regulatory expertise on the East Coast. While there are RSPA offices throughout the country, it has been our experience that these satellite offices tend to rely on East Coast expertise as well and simply relay questions and inquiries there.

Though telephone, fax and e-mail certainly afford a means of communication, they are no substitute for direct interaction, especially on complex technical matters.

While a certain amount of centralization is understandable, it is important to understand that it is burdensome for small entities to pay the travel and related costs of sending a representative to Washington to discuss technical and regulatory matters and that the system appears to favor those who do.

We suggest that a program be created whereby those East Coast based DOT personnel with technical expertise and/or decision making authority make regular trips to other regions, including the West Coast with a view toward direct interaction with those who are affected by the regulations and toward offsetting any geographic disadvantages.

Regarding access to the regulations:

Having the current regulations available on the Internet is a very good and useful resource for small entities, especially when compared with the cumbersome and costly printed update services available from commercial sources.

These regulations on the website unfortunately can't be text searched easily and can't be downloaded en masse i.e. they must laboriously be downloaded section by section.

We suggest that in addition DOT make available searchable text and PDF versions of the regulations as mass downloads and on CD or DVD ROM on a cost recovery basis as commercial versions tend to be expensive and come bundled with proprietary software which often provides poor value for money.

Regarding the harmonization of DOT regulations with those of other regulatory agencies:

It is essential that DOT's regulations not only be clear, reasonable and accessible to the average worker but they must also be compatible with those of other agencies, especially BATFE and EPA.

It is important to keep in mind that the effect of all these regulations is cumulative and that a DOT regulation which may be reasonable in its own context becomes burdensome when it contradicts a regulation or practice of another agency, especially where there is no clear distinction where the authority of one agency ends and the other begins.

As you are likely aware, what has been characterized as a jurisdictional dispute between DOT and BATFE last year over security resulted in major common carriers refusing to accept explosives shipments for a prolonged period of time which was a significant burden to our industry.

We strongly suggest that in future, regulation of explosives be viewed holistically among all agencies and that all jurisdictional matters be resolved before any changes are made.

Regarding the way forward:

On behalf of our organization, we again thank DOT for this opportunity to comment on the regulations.

As one might expect, this letter does not represent the entirety of our comments and views on the regulations in 49 CFR Parts 172, 173, 174, 175, 176, 177 and 178, merely those which the constraints of time and our limited resources allowed us to put in writing at this time.

We would like to continue to work with the DOT and encourage RSPA to contact us should they desire any further clarification or discussion of our position on these issues and other aspects of the regulations.

Sincerely

Tassilo Baur
Chair, ASEPO Compliance Committee

Attachments

DB 1
File: 177.835
Sec 134, 4141

OWEN COMPLIANCE SERVICES, INC.

8717-A Forum Way · Fort Worth, TX 76140 · (817)551-0660 · Fax: (817)551-1032

March 31, 1994
DOT\94033101

Mr. John Gale
Office of Hazardous Materials Standards
U.S. Department of Transportation/RSPA
Room 8100
400 7th St SW
Washington, DC 20590-0001

APR 19 1994
1. L.

Dear Mr. Gale:

Clarification is sought regarding the intent of 49 CFR 177.835(g)(2). Specifically, we desire to know which of the following scenarios is correct under this regulation:

1. 1.4S detonators can be transported with 1.4D detonating cord if separated from the detonating cord by a minimum distance of 61 cm (24 inches), or

2. 1.4S detonators can be transported with 1.4D detonating cord if separated from the detonating cord by a minimum distance of 61 cm (24 inches) and if the detonators are packed in an IME-22 container.

It has been brought to my attention that the DOT Enforcement Branch feels that #2 is correct. They arrive at this conclusion because of the reference to §173.63 in this paragraph. Is this reference correct, or is it perhaps a misprint, intended to be §173.62.

The enforcement branch contends that since §173.63(f) and (g) both require use of an IME-22 container, that detonators must be packed in such a container if they are to be transported on the same vehicle with 1.4D detonating cord. However, this section (§173.63) is a packaging exceptions section, not a packaging requirements section as described in §177.835(g)(2), "The package conforms with ***requirements*** [emphasis added by OCS] prescribed in §173.63 of this subchapter...".

The Enforcement Branch's interpretation is not consistent with the pre-HM-181 version of §177.835(g) which referred to §173.103(d). This section was a specific packaging requirement for packing detonators to be transported aboard passenger carrying aircraft (equivalent today to 1.4S detonators). Therefore, in the pre-HM-181 version of §177.835(g), DOT authorized transport of specially packaged detonators (those meeting the requirements of §173.103(d), i.e., 1.4S detonators) with 1.4D detonating cord, if packages of detonators were separated by a minimum distance of 24 inches from packages of detonating cord.

I believe that this is still the intent of §177.835(g) and that the reference to §173.63 should actually be to §173.62, where the specific packing requirements for 1.4S detonators can be found. Your assistance in clarifying this matter is appreciated.

Sincerely,

David W. Boston
President

cc: 0099.007

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Pg 2 of 2

U.S Department
of Transportation
**Research and
Special Programs
Administration**

MAY - 4 1994

Mr. David W. Boston
President
Owen Compliance Service, Inc.
8717-A Forum Way
Fort Worth, TX 76140

Dear Mr. Boston:

This is in response to your letter dated March 31, 1994, regarding the transportation of detonators and detonating cord on the same motor vehicle. Specifically, you ask if the reference to "§ 173.63" in § 177.835(g)(2) is incorrect and should be "§ 173.62."

You are correct. The reference to "§ 173.63" in § 177.835(g)(2) is wrong and should be "§ 173.62." As noted in your letter, § 177.835(g)(2) should allow Detonators, Division 1.4S, to be transported on the same motor vehicle with Detonating cord, Division 1.4D, if separated by a minimum of 61 cm (24 inches). We will correct this error in the regulations as soon as possible.

Sincerely,

Delmer F. Billings
Chief, Regulations Development
Office of Hazardous Materials Standards

7417
Ap 2 of 2

****
*** RX REPORT ***
****

RECEPTION OK

TX/RX NO	6336
CONNECTION TEL	1 818 365 8775
SUBADDRESS	
CONNECTION ID	DE LA MARE ENGIN
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USAGE T	06'48
PGS.	21
RESULT	OK

Department for
Transport

Diana Chad
Administrative Officer
RMTD4
Zone 2/33
Great Minster House
76 Marsham Street
London
SW1P 4DR

Direct line: 020 7944 5509
Fax: 020 7944 2187
GTN code: 3533
E-mail: Diana.Chad@dft.gsi.gov.uk

Web site: www.dft.gov.uk

Our Ref: DGB 23/2/3570

2 June 2004

Facsimile

To: Mr R. Boyle
U.S Department of Transportation
RSPA (DHM-23, room 8430)
400 Seventh St. SW
Washington DC 20590

Telephone: +1 202 366 2993
Fax: +1 202 366 3753

Pages: 22 including this one

GB/3570/1/2

Dear Mr Boyle,

Please find copies of above certificates as requested.

Regards,

Diana Chad

Reference: GB/3570/H(U)-96
Issue 1
Page 1 of 7 pages

Certificate of Approval of Package Design for the Carriage of Radioactive Materials

THIS IS TO CERTIFY that the Secretary of State for Transport being, for the purposes of the Regulations of the International Atomic Energy Agency, the Competent Authority of Great Britain in respect of inland surface transport and of the United Kingdom of Great Britain and Northern Ireland in respect of sea and air transport and the Department of the Environment for Northern Ireland being the Competent Authority of Northern Ireland in respect of inland surface transport, have approved the Package design as specified in section 1 of this certificate, as applied for by British Nuclear Fuels plc (see section 6)

as Type H(U)-96

by all modes

Packaging identification: 48X or 48Y Hex Package with BTP

Packages manufactured to this design meet the requirements of the regulations and codes on page 2, relevant to the mode of transport, subject to the following general condition and to the conditions in the succeeding pages of this certificate.
In the event of any alteration in the composition of the package, the package design, the quality assurance programme(s) associated with the package or in any of the facts stated in the application for approval, this certificate will cease to have effect unless the Competent Authority is notified of the alteration and the Competent Authority confirms the certificate notwithstanding the alteration.

Expiry Date: This certificate cancels all previous issues, and is valid until the end of May 2007 (see section 6)

COMPETENT AUTHORITY IDENTIFICATION MARK:

Type H(U)
GB/3570/H(U)-96

UNITED KINGDOM COMPETENT AUTHORITY FOR THE TRANSPORT
26 MAY 2004
OF RADIOACTIVE MATERIALS

Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

On behalf of the Secretary of State for Transport, and the Department of the Environment for Northern Ireland

This certificate does not relieve the consignor from compliance with any requirement of the government of any country through or into which the package will be transported.

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS

INTERNATIONAL

International Atomic Energy Agency (IAEA)
TS-R-1. Regulations for the Safe Transport of Radioactive Materials 1996 Edition (Revised)

International Maritime Organisation (IMO)
International Maritime Dangerous Goods (IMDG) Code (Amdt. 31-02)

International Civil Aviation Organisation (ICAO)
Technical Instructions for the Safe Transport of Dangerous Goods by Air. 2003-2004 Edition

United Nations Economic Commission for Europe (UNECE)
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). 2003 Edition

Intergovernmental Organisation for International Carriage by Rail (OTIF)
Convention concerning International Carriage by Rail (COTIF) Appendix B. Uniform Rules concerning the Contract for International Carriage of Goods by Rail (CIM) Annex 1 Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 2003 Edition

UNITED KINGDOM

ROAD
GREAT BRITAIN ONLY.
The Radioactive Material (Road Transport) (Definition of Radioactive Material) Order 2002, SI 2002 No. 1092;
The Radioactive Material (Road Transport) Regulations 2002, SI 2002 No. 1093.
The Radioactive Material (Road Transport) (Amendment) Regulations 2003, SI 2003 No 1867.
NORTHERN IRELAND ONLY.
The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344; The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL
GREAT BRITAIN ONLY.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004, SI 2004 No 568.

SEA
British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1772(M), "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 31-02 to the International Maritime Dangerous Goods (IMDG) Code".

AIR
The Air Navigation Order 2000, SI 2000 No 1562. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786.

1. PACKAGE DESIGN SPECIFICATION

The Package Design Specification shall be in accordance with BNFL's Design Safety Case (Safety Analysis Report) for 48 inch Hex Cylinders, reference BNFL Transport Report No. 111, Issue 3 dated 26 May 2004, and modifications to the package design approved by the authority named on page 1 of this certificate under the established modifications procedure.

1.1 Specification of Design

Design No.	Title (number of components)	Drawing / Drawing List	Issue
3570 (	Outer / Blanket Thermal Protector (BTP)/ One	Cogema Specs. ref. 5314-A-3 & 5314-A-4	Rev 1
(	Inner / 48 X or 48Y hex cylinder/ One	See ANSI N14.1 Figures 8 & 9	All

1.2 Authorised Contents

Solid, non-fissile or fissile excepted, uranium hexafluoride. The quantity shall be limited as specified in the following table:

Cylinder type	Minimum quantity (kg UF_6) (Full cylinder)	Maximum quantity (kg UF_6) (Full cylinder)
48X	9062	9539
48Y	11875	12501

1.3 Package Dimensions and Weights

a) Nominal Dimensions: 48X - 1219 mm diameter x 2940 mm long, 48Y - 1219 mm diameter x 3727 mm long (see section 5 for package illustration).

b) Gross weight: 48X - 11657 kg, 48Y - 14951 kg.

2. USE OF PACKAGE

2.1 Use of packaging

a) The package shall be prepared, inspected, filled, closed, tested and operated in accordance with ANSI N14.1 or ISO 7195, and Section 4 and Appendix F of TR 111 Issue 3 (see paragraph 1 of this certificate).

b) The packaging shall be maintained in accordance with the Inspection, Maintenance and Repair procedures specified in ANSI N14.1 or ISO 7195, and Appendix F of TR 111, Issue 3 (see paragraph 1 of this certificate).

2.2 Actions prior to shipment

Administrative controls shall ensure that the contents are in accordance with section 1 of this certificate, and that the consignor and consignee hold a copy of the instructions on the use of the packaging.

2.3 Emergency Arrangements

a) Road, Rail and Airports in GB

(i) RADSAFE member

In the event of an emergency the procedures set out in RADSAFE (the nuclear industry transport emergency plan) shall apply. The police shall be informed that RADSAFE has been initiated.

(ii) Non RADSAFE member

Before shipment takes place, the consignor shall have drawn up suitable emergency plans, copies of which shall be supplied to the UK Competent Authority on demand. In the event of an emergency these emergency plans shall be initiated and the police informed.

b) Sea

In the event of an emergency, the procedure set out in the IMDG Code as quoted on page 2 of this certificate shall apply.

c) If RADSAFE, the consignor's own, or other approved emergency plans cannot be initiated, for any reason, then the police shall be informed immediately and requested to call the local NAIR (National Arrangements for Incidents involving Radioactivity) establishment.

2.4 Ambient temperature range for package design

-40°C to +38°C

3. QUALITY ASSURANCE

3.1 Quality assurance programmes applicable to this design are:

a) as specified in the BNFL "Company Transport Arrangements for Radioactive Material Transport"; and

b) The BNFL International Transport and Pacific Nuclear Transport Ltd Management System Manual (Spent Fuel Services)

c) any other quality assurance programmes associated with the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, must comply with national or international standards for quality assurance which are acceptable to the authority named on page 1 of this certificate, or other responsible Competent Authority through whose county and jurisdiction the package is being operated.

3.2 No alterations shall be made to the quality assurance programmes associated with this design and approved by the authority named on page 1 of this certificate unless that alteration has the prior approval of said authority, or it falls within the agreed change control procedures of that programme.

4. ADMINISTRATIVE INFORMATION

4.1 Other related certificates (alternative radioactive contents)

This certificate forms the base approval of this design. No other related UK certificates based on the 3570 exist at the time of compilation of this design approval certificate.

4.2 Additional Technical Data / Information

At the time of compilation of this design approval certificate, The Ionising Radiations Regulations 1999, SI 1999 No 3232 and Approved Code of Practice apply, with regard to radiation protection, to all modes of transport and The Dangerous Substances in Harbour Areas Regulations 1987, SI 1987 No 37, apply in UK Ports.

4.3 Shipment Approval

Not required.

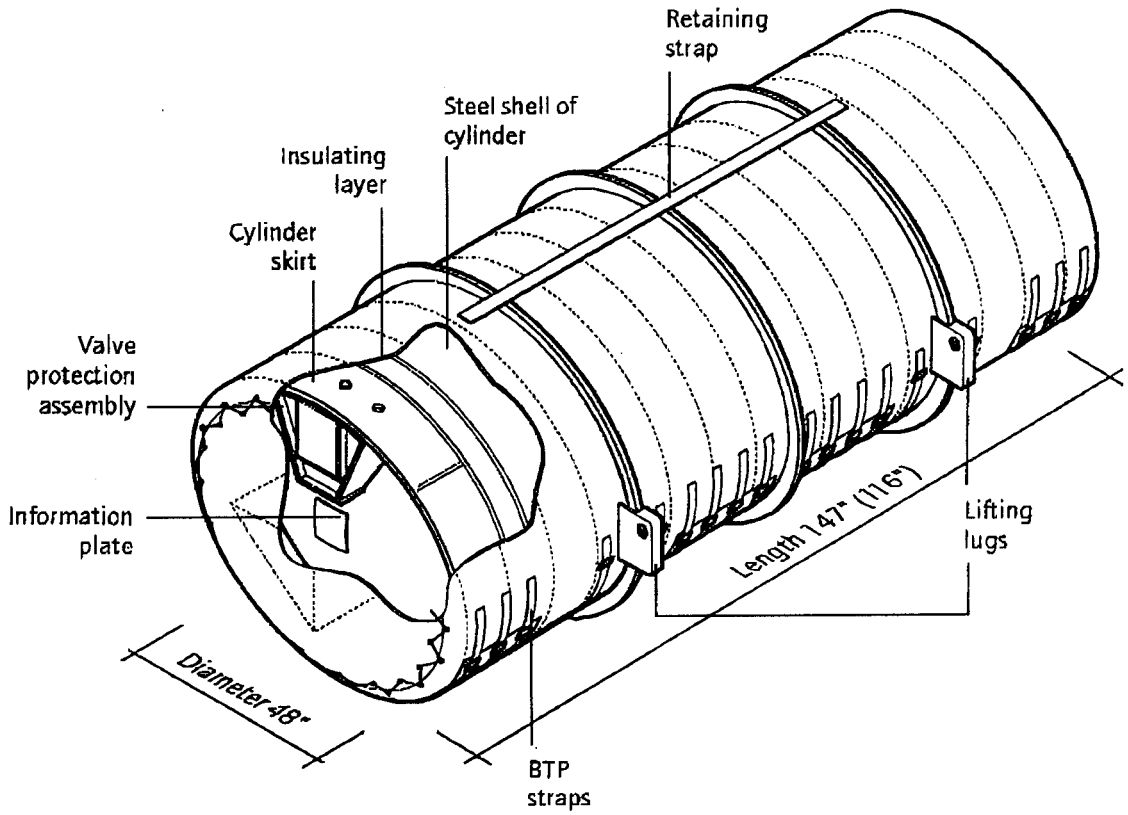
4.4 Renewal of Certificates

If the period of validity is required to be extended, application shall be made at least six weeks in advance of expiry.

5. PACKAGE ILLUSTRATION

Metric Dimension Table (mm)		
Cylinder Type	**Diameter**	**Length**
48 Y	1219	3727
48 X (In brackets)	1219	2940

All dimensions are approximate



48Y(48X) UF6 Cylinder with Blanket Thermal Protection

6. CERTIFICATE STATUS

Design Approval issued to:-

British Nuclear Fuels plc
Package Approval Section
Risley
Warrington
Cheshire
WA3 6AS

Issue No.	Date of Issue	Date of Expiry	Reason for Revision
Issue 1	As stated on page 1 of this certificate	End May 2007	New approval

Reference: GB/3571/H(U)-96
Issue 1

Certificate of Approval of Package Design for the Carriage of Radioactive Materials

THIS IS TO CERTIFY that the Secretary of State for Transport being, for the purposes of the Regulations of the International Atomic Energy Agency, the Competent Authority of Great Britain in respect of inland surface transport and of the United Kingdom of Great Britain and Northern Ireland in respect of sea and air transport and the Department of the Environment for Northern Ireland being the Competent Authority of Northern Ireland in respect of inland surface transport, have approved the Package design as specified in section 1 of this certificate, as applied for by British Nuclear Fuels plc (see section 6)

as Type H(U)-96

by all modes

Packaging identification: 48X or 48Y Hex Package with CTP

Packages manufactured to this design meet the requirements of the regulations and codes on page 2, relevant to the mode of transport, subject to the following general condition and to the conditions in the succeeding pages of this certificate.
In the event of any alteration in the composition of the package, the package design, the quality assurance programme(s) associated with the package or in any of the facts stated in the application for approval, this certificate will cease to have effect unless the Competent Authority is notified of the alteration and the Competent Authority confirms the certificate notwithstanding the alteration.

Expiry Date: This certificate cancels all previous issues, and is valid until the end of May 2007 (see section 6)

COMPETENT AUTHORITY IDENTIFICATION MARK:

Type H(U)
GB/3571/H(U)-96

UNITED KINGDOM COMPETENT AUTHORITY FOR THE TRANSPORT
28 MAY 2004
OF RADIOACTIVE MATERIALS

pp. M.P. Tuck

Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

On behalf of the Secretary of State for Transport, and the Department of the Environment for Northern Ireland

This certificate does not relieve the consignor from compliance with any requirement of the government of any country through or into which the package will be transported.

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS

INTERNATIONAL

International Atomic Energy Agency (IAEA)
TS-R-1. Regulations for the Safe Transport of Radioactive Materials 1996 Edition (Revised)

International Maritime Organisation (IMO)
International Maritime Dangerous Goods (IMDG) Code (Amdt. 31-02)

International Civil Aviation Organisation (ICAO)
Technical Instructions for the Safe Transport of Dangerous Goods by Air. 2003-2004 Edition

United Nations Economic Commission for Europe (UNECE)
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). 2003 Edition

Intergovernmental Organisation for International Carriage by Rail (OTIF)
Convention concerning International Carriage by Rail (COTIF) Appendix B. Uniform Rules concerning the Contract for International Carriage of Goods by Rail (CIM) Annex 1 Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 2003 Edition

UNITED KINGDOM

ROAD
GREAT BRITAIN ONLY.
The Radioactive Material (Road Transport) (Definition of Radioactive Material) Order 2002, SI 2002 No. 1092;
The Radioactive Material (Road Transport) Regulations 2002, SI 2002 No. 1093.
The Radioactive Material (Road Transport) (Amendment) Regulations 2003, SI 2003 No 1867.
NORTHERN IRELAND ONLY.
The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344; The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL
GREAT BRITAIN ONLY.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004, SI 2004 No 568.

SEA
British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1772(M), "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 31-02 to the International Maritime Dangerous Goods (IMDG) Code".

AIR
The Air Navigation Order 2000, SI 2000 No 1562. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786.

1. PACKAGE DESIGN SPECIFICATION

The Package Design Specification shall be in accordance with BNFL's Design Safety Case (Safety Analysis Report) for 48 inch Hex Cylinders, reference BNFL Transport Report No. 111, Issue 3 dated 26 May 2004, and modifications to the package design approved by the authority named on page 1 of this certificate under the established modifications procedure.

1.1 Specification of Design

Design No.	Title (number of components)	Drawing / Drawing List	Issue
3571	Outer / Composite Thermal Protector (CTP)/ One	BNFL Spec. ref. NMSS 01	C
	Inner / 48 X or 48Y hex cylinder/ One	See ANSI N14.1 Figures 8 & 9	All

1.2 Authorised Contents

Solid, non-fissile or fissile excepted, uranium hexafluoride. The quantity shall be limited as specified in the following table:

Cylinder type	Minimum quantity (kg UF_6) (Full cylinder)	Maximum quantity (kg UF_6) (Full cylinder)
48X	9062	9539
48Y	11875	12501

1.3 Package Dimensions and Weights

a) Nominal Dimensions: 48X - 1219 mm diameter x 2940 mm long, 48Y - 1219 mm diameter x 3727 mm long (see section 5 for package illustration).

b) Gross weight: 48X - 11795 kg, 48Y - 15111 kg.

2. USE OF PACKAGE

2.1 Use of packaging

a) The package shall be prepared, inspected, filled, closed, tested and operated in accordance with ANSI N14.1 or ISO 7195, and Section 4 and Appendix K of TR 111 Issue 3 (see paragraph 1 of this certificate).

b) The packaging shall be maintained in accordance with the Inspection, Maintenance and Repair procedures specified in ANSI N14.1 or ISO 7195, and Appendix K of TR 111, Issue 3 (see paragraph 1 of this certificate).

2.2 Actions prior to shipment

Administrative controls shall ensure that the contents are in accordance with section 1 of this certificate, and that the consignor and consignee hold a copy of the instructions on the use of the packaging.

2.3 Emergency Arrangements

a) Road, Rail and Airports in GB

(i) RADSAFE member

In the event of an emergency the procedures set out in RADSAFE (the nuclear industry transport emergency plan) shall apply. The police shall be informed that RADSAFE has been initiated.

(ii) Non RADSAFE member

Before shipment takes place, the consignor shall have drawn up suitable emergency plans, copies of which shall be supplied to the UK Competent Authority on demand. In the event of an emergency these emergency plans shall be initiated and the police informed.

b) Sea

In the event of an emergency, the procedure set out in the IMDG Code as quoted on page 2 of this certificate shall apply.

c) If RADSAFE, the consignor's own, or other approved emergency plans cannot be initiated, for any reason, then the police shall be informed immediately and requested to call the local NAIR (National Arrangements for Incidents involving Radioactivity) establishment.

2.4 Ambient temperature range for package design

-40°C to +38°C

3. QUALITY ASSURANCE

3.1 Quality assurance programmes applicable to this design are:

a) as specified in the BNFL "Company Transport Arrangements for Radioactive Material Transport"; and

b) The BNFL International Transport and Pacific Nuclear Transport Ltd Management System Manual (Spent Fuel Services)

c) any other quality assurance programmes associated with the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, must comply with national or international standards for quality assurance which are acceptable to the authority named on page 1 of this certificate, or other responsible Competent Authority through whose country and jurisdiction the package is being operated.

3.2 No alterations shall be made to the quality assurance programmes associated with this design and approved by the authority named on page 1 of this certificate unless that alteration has the prior approval of said authority, or it falls within the agreed change control procedures of that programme.

4. ADMINISTRATIVE INFORMATION

4.1 Other related certificates (alternative radioactive contents)

This certificate forms the base approval of this design. No other related UK certificates based on the 3571 exist at the time of compilation of this design approval certificate.

4.2 Additional Technical Data / Information

At the time of compilation of this design approval certificate, The Ionising Radiations Regulations 1999, SI 1999 No 3232 and Approved Code of Practice apply, with regard to radiation protection, to all modes of transport and The Dangerous Substances in Harbour Areas Regulations 1987, SI 1987 No 37, apply in UK Ports.

4.3 Shipment Approval

Not required.

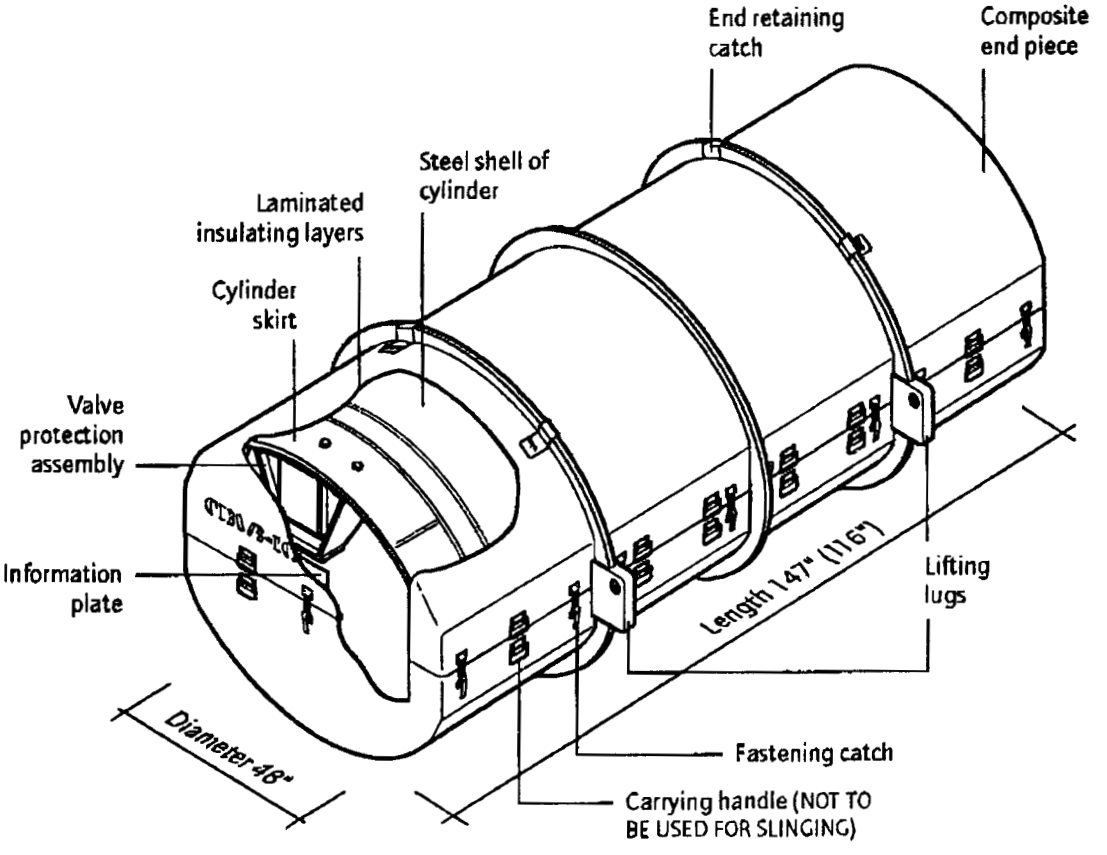
4.4 Renewal of Certificates

If the period of validity is required to be extended, application shall be made at least six weeks in advance of expiry.

5. PACKAGE ILLUSTRATION

Metric Dimension Table (mm)		
Cylinder Type	**Diameter**	**Length**
48 Y	1219	3727
48 X (In brackets)	1219	2940

All dimensions approximate



48Y(48X) UF6 Cylinder with Composite Thermal Protection

6. CERTIFICATE STATUS

Design Approval issued to:-

British Nuclear Fuels plc
Package Approval Section
Risley
Warrington
Cheshire
WA3 6AS

Issue No.	Date of Issue	Date of Expiry	Reason for Revision
Issue 1	As stated on page 1 of this certificate	End May 2007	New approval

Reference: GB/3572/H(U)-96
Issue 1
Page 1 of 7 pages

Certificate of Approval of Package Design for the Carriage of Radioactive Materials

THIS IS TO CERTIFY that the Secretary of State for Transport being, for the purposes of the Regulations of the International Atomic Energy Agency, the Competent Authority of Great Britain in respect of inland surface transport and of the United Kingdom of Great Britain and Northern Ireland in respect of sea and air transport and the Department of the Environment for Northern Ireland being the Competent Authority of Northern Ireland in respect of inland surface transport, have approved the Package design as specified in section 1 of this certificate, as applied for by British Nuclear Fuels plc (see section 6)

as Type H(U)-96

by all modes

Packaging identification: 48X or 48Y Hex Package with residual quantity of UF_6

Packages manufactured to this design meet the requirements of the regulations and codes on page 2, relevant to the mode of transport, subject to the following general condition and to the conditions in the succeeding pages of this certificate.
In the event of any alteration in the composition of the package, the package design, the quality assurance programme(s) associated with the package or in any of the facts stated in the application for approval, this certificate will cease to have effect unless the Competent Authority is notified of the alteration and the Competent Authority confirms the certificate notwithstanding the alteration.

Expiry Date: This certificate cancels all previous issues, and is valid until the end of May 2007 (see section 6)

COMPETENT AUTHORITY IDENTIFICATION MARK:

Type H(U)
GB/3572/H(U)-96

UNITED KINGDOM COMPETENT AUTHORITY FOR THE TRANSPORT
28 MAY 2004
OF RADIOACTIVE MATERIALS

Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

On behalf of the Secretary of State for Transport, and the Department of the Environment for Northern Ireland

This certificate does not relieve the consignor from compliance with any requirement of the government of any country through or into which the package will be transported.

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS

INTERNATIONAL

International Atomic Energy Agency (IAEA)
TS-R-1. Regulations for the Safe Transport of Radioactive Materials 1996 Edition (Revised)

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International Maritime Dangerous Goods (IMDG) Code (Amdt. 31-02)

International Civil Aviation Organisation (ICAO)
Technical Instructions for the Safe Transport of Dangerous Goods by Air. 2003-2004 Edition

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UNITED KINGDOM

ROAD
GREAT BRITAIN ONLY.
The Radioactive Material (Road Transport) (Definition of Radioactive Material) Order 2002, SI 2002 No. 1092;
The Radioactive Material (Road Transport) Regulations 2002, SI 2002 No. 1093.
The Radioactive Material (Road Transport) (Amendment) Regulations 2003, SI 2003 No 1867.
NORTHERN IRELAND ONLY.
The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344; The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL
GREAT BRITAIN ONLY.
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004, SI 2004 No 568.

SEA
British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1772(M), "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 31-02 to the International Maritime Dangerous Goods (IMDG) Code".

AIR
The Air Navigation Order 2000, SI 2000 No 1562. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786.

1. PACKAGE DESIGN SPECIFICATION

The Package Design Specification shall be in accordance with BNFL's Design Safety Case (Safety Analysis Report) for 48 inch Hex Cylinders, reference BNFL Transport Report No. 111, Issue 3 dated 26 May 2004, and modifications to the package design approved by the authority named on page 1 of this certificate under the established modifications procedure.

1.1 Specification of Design

Design No.	Title (number of components)	Drawing / Drawing List	Issue
3572	48 X or 48Y hex cylinder/ One	See ANSI N14.1 Figures 8 & 9	All

1.2 Authorised Contents

Solid, non-fissile or fissile excepted, uranium hexafluoride. The quantity shall be limited as specified in the following table:

Cylinder type	Maximum quantity (kg UF_6)
48X	148.3
48Y	197.75

1.3 Package Dimensions and Weights

a) Nominal Dimensions: 48X - 1219 mm diameter x 2940 mm long, 48Y - 1219 mm diameter x 3727 mm long (see section 5 for package illustration).

b) Gross weight: 48X - 2200 kg, 48Y - 2568 kg.

2. USE OF PACKAGE

2.1 Use of packaging

a) The package shall be prepared, inspected, filled, closed, tested and operated in accordance with ANSI N14.1 or ISO 7195, and Section 4 of TR 111 Issue 3 (see paragraph 1 of this certificate).

b) The packaging shall be maintained in accordance with the Inspection, Maintenance and Repair procedures specified in ANSI N14.1 or ISO 7195.

2.2 Actions prior to shipment

Administrative controls shall ensure that the contents are in accordance with section 1 of this certificate, and that the consignor and consignee hold a copy of the instructions on the use of the packaging.

2.3 Emergency Arrangements

a) Road, Rail and Airports in GB

(i) RADSAFE member

In the event of an emergency the procedures set out in RADSAFE (the nuclear industry transport emergency plan) shall apply. The police shall be informed that RADSAFE has been initiated.

(ii) Non RADSAFE member

Before shipment takes place, the consignor shall have drawn up suitable emergency plans, copies of which shall be supplied to the UK Competent Authority on demand. In the event of an emergency these emergency plans shall be initiated and the police informed.

b) Sea

In the event of an emergency, the procedure set out in the IMDG Code as quoted on page 2 of this certificate shall apply.

c) If RADSAFE, the consignor's own, or other approved emergency plans cannot be initiated, for any reason, then the police shall be informed immediately and requested to call the local NAIR (National Arrangements for Incidents involving Radioactivity) establishment.

2.4 Ambient temperature range for package design

-40°C to +38°C

3. QUALITY ASSURANCE

3.1 Quality assurance programmes applicable to this design are:

a) as specified in the BNFL "Company Transport Arrangements for Radioactive Material Transport"; and

b) The BNFL International Transport and Pacific Nuclear Transport Ltd Management System Manual (Spent Fuel Services)

c) any other quality assurance programmes associated with the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, which must also comply with national or international standards for quality assurance which are acceptable to the authority named on page 1 of this certificate, or other responsible competent Authority through whose country and jurisdiction the package is being operated.

3.2 No alterations shall be made to the quality assurance programmes associated with this design and approved by the authority named on page 1 of this certificate unless that alteration has the prior approval of said authority, or it falls within the agreed change control procedures of that programme.

4. ADMINISTRATIVE INFORMATION

4.1 Other related certificates (alternative radioactive contents)

This certificate forms the base approval of this design. No other related UK certificates based on the 3572 exist at the time of compilation of this design approval certificate.

4.2 Additional Technical Data / Information

At the time of compilation of this design approval certificate, The Ionising Radiations Regulations 1999, SI 1999 No 3232 and Approved Code of Practice apply, with regard to radiation protection, to all modes of transport and The Dangerous Substances in Harbour Areas Regulations 1987, SI 1987 No 37, apply in UK Ports.

4.3 Shipment Approval

Not required.

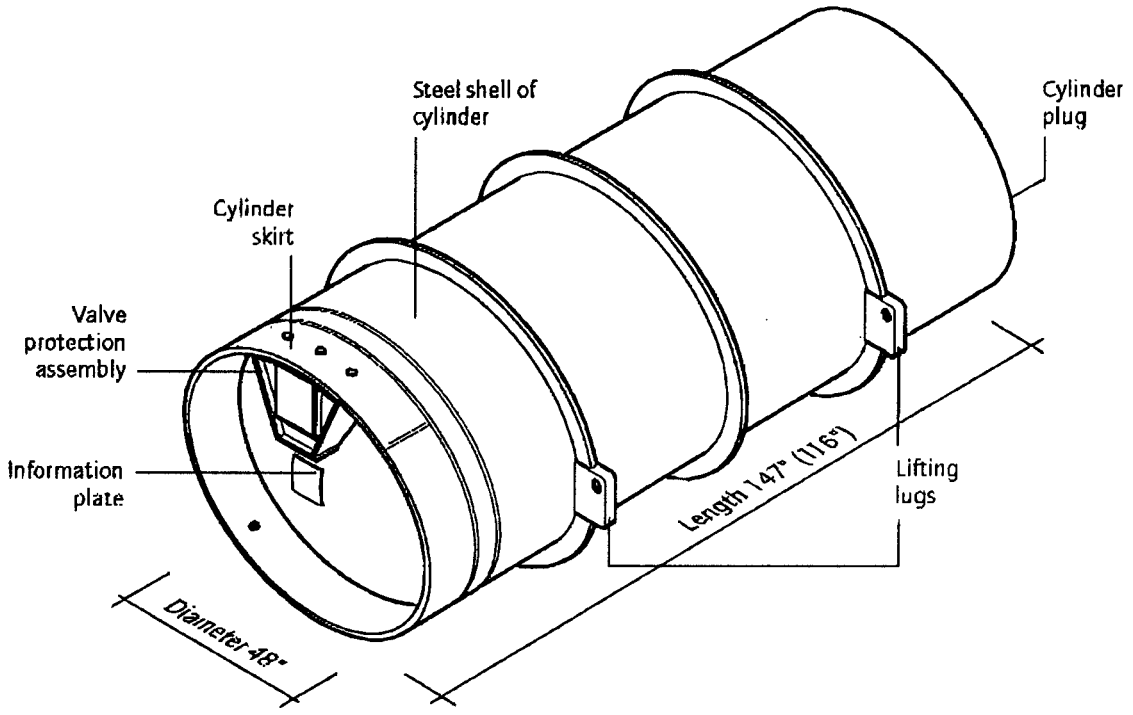
4.4 Renewal of Certificates

If the period of validity is required to be extended, application shall be made at least six weeks in advance of expiry.

5. PACKAGE ILLUSTRATION

Metric Dimension Table (mm)		
Cylinder Type	**Diameter**	**Length**
48 Y	1219	3727
48 X (In brackets)	1219	2940

All dimensions approximate



48Y(48X) Bare UF6 Cylinder

6. CERTIFICATE STATUS

Design Approval issued to:-

British Nuclear Fuels plc
Package Approval Section
Risley
Warrington
Cheshire
WA3 6AS

Issue No.	Date of Issue	Date of Expiry	Reason for Revision
Issue 1	As stated on page 1 of this certificate	End May 2007	New approval